



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/813,152

03/30/2004

Gary A. Kinstler

60000500-1024

5419

26263

7590

09/06/2006

SONNENSCHN NATH & ROSENTHAL LLP

P.O. BOX 061080

WACKER DRIVE STATION, SEARS TOWER

CHICAGO, IL 60606-1080

EXAMINER

BAE, JI H

ART UNIT

PAPER NUMBER

2115

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,152

Applicant(s)

KINSTLER, GARY A.

Examiner

Ji H. Bae

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3-30-2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the network interface card" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior recitation of a network interface card in claim 1. Claim 1 recites a "network interface apparatus" in the preamble.

Claim 2 recites the limitation "a predetermined level" in line 8, and "the predetermined level" in line 11. It is unclear whether the predetermined level being recited is the same as that recited in claim 1, i.e. whether there exists a first predetermined level for the first current sensor and a second predetermined level for the second current sensor, or a single predetermined level for both.

Claim 10 recites "the second bus interface circuit" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior recitation of a second bus interface in claim 10, nor in the parent claim (claim 1).

Claims 3-10 are rejected by virtue of their dependency.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Art Unit: 2115

Claim 22-32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 22-32 each recite a "computer-readable medium". Applicant's specification defines a computer-readable medium as comprising "a carrier wave received from a network." Because a carrier wave is not tangible and cannot be classified as a process, machine, article of manufacture, or composition of matter, the claims are deemed to recite non-statutory subject matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-16, 20-27, 31, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim, U.S. Patent No. 6,064,554.

Regarding claim 11, Kim teaches a method comprised of:

sensing a current level in a bus interface circuit operatively connecting a node on the network to a bus [Fig. 3, overcurrent detector 140];

determining whether the senses current level exceeds a predetermined level; and

re-initializing the bus interface circuit in response to determining that the sensed current level exceeds the predetermined level [col. 4, lines 30-41].

Regarding claim 12, Kim teaches a plurality of bus interface circuits [e.g. Fig. 3, power switch N, power interruption controller N, overcurrent detector N].

Art Unit: 2115

Regarding claim 13, Kim teaches isolating the bus interface circuit from a component connected to the bus upstream [power switch 120, Fig. 3, col. 4, lines 38-41].

Regarding claim 14, Kim teaches cycling power to the bus interface circuit [col. 6, lines 17-19].

Regarding claim 15, the bus interface of Kim is a physical layer controller.

Regarding claim 16, Kim teaches inhibiting a current from the bus from reaching the physical layer controller.

Regarding claims 20 and 21, Kim teaches a plurality of bus interface circuits, each with a current sensor and simultaneously implementing the protecting function [col. 6, lines 5-10].

Regarding claims 22-27, 31, and 32, Kim teaches the method of claims 11-16, 20, and 21. Kim also teaches a computer-readable medium that stores instructions implementing the claimed method.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 9, 10, 17-19, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, U.S. Patent Application Publication No. 2004/0229478 A1, in view of Kim, U.S. Patent No. 6,064,554.

Regarding claim 1, Chen teaches a network interface apparatus, but does not teach a bus interface circuit with current sensing and power controlling features.

Art Unit: 2115

Kim teaches a bus interface circuit [Fig. 3] that connect various USB peripherals to a Universal Serial Bus, comprising:

a power controller operatively connected to the bus interface circuit [signal transfer/power interruption controller 150];

a current sensor operatively connected to the bus interface circuit [overcurrent detector 140];

means for determining whether the sensed current level exceeds a predetermined level and for causing the power controller to cycle power to the bus interface circuit in response to determining that the sensed current level exceeds the predetermined level [col. 2, lines 25-40].

It would have been obvious to one of ordinary skill in the art to combine the teachings of Kim and Chen by using the USB network interface of Chen with the USB hub of Kim. Both Kim and Chen are directed towards USB devices, and in particular, the hub of Kim is designed to be used with USB peripheral devices, such as that of Chen.

Regarding claim 5, Kim teaches a bus switch to isolate the bus interface circuit when the power controller cycles power to the bus interface unit [Fig. 3, power switch 120].

Regarding claim 9, Kim teaches a plurality of bus interface circuits [e.g. Fig. 3, power switch N, power interruption controller N, overcurrent detector N].

Regarding claim 10, Kim teaches sensing current levels in the first and second bus interfaces simultaneously [col. 6, lines 5-10].

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Hwang et al., U.S. Patent Application No. 2005/0060587 A1;
Floro et al., U.S. Patent no. 6,483,317 B1;
Krithivas et al., U.S. Patent No. 6,067,628;
Lee, U.S. Patent No. 6,516,418 B1;
Stachura et al., U.S. Patent No. 6,963,985 B2;
McCoy, U.S. Patent No. 4,013,938;
Mikolajczak et al., U.S. Patent No. 6,937,454 B2;
Heaney et al., U.S. Patent No. 5,548,467.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji H. Bae whose telephone number is 571-272-7181. The examiner can normally be reached on Monday-Friday, 10 am to 6:30 pm.

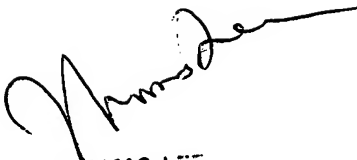
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/813,152
Art Unit: 2115

Page 7

Ji H. Bae
Patent Examiner
Art Unit 2115
ji.bae@uspto.gov
571-272-7181



THOMAS LEE
SUPERVISING PATENT EXAMINER
TECHNICAL CENTER 1700